



IssueBrief



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Trauma Care in Georgia: Building a Better System

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Improvements in trauma care through systematic change

During the Korean, Vietnam and Persian Gulf Wars, the U.S. military had a mortality rate that consistently hovered at 24-25%, but improvements in trauma care have reduced the death rate to 10% in the wars in Iraq and Afghanistan. The primary improvements were not better treatments, newer technologies, or even more surgeons. The changes were more fundamental – greater accountability by tracking data on the injuries, their causes, and their treatments; regionalized mechanisms that delivered faster initial care; and improved system coordination allowing greater utilization of advanced care.¹ Such dramatic improvements are not limited to the military. In the U.S., death and disability rates from traumatic injury have been reduced by 20-40% in areas that established coordinated trauma systems.²

The changes made by the military – creating a system that is coordinated, regionalized, and accountable – are very similar to the improvements suggested by the Institute of Medicine (IOM) for better emergency care in the U.S.

Specifically, the IOM recommends improving the coordination of communication, transportation and services among 9-1-1 call centers, Emergency Medical Services (EMS), hospitals, trauma centers, and public health. It recommends regionalizing care by assessing each patient's condition, considering the distances involved, and then directing patients to the optimal facility within their regions. It also recommends the development of evidence-based standards for different components of the system, measuring performance against those standards, and reporting that performance to the public.³

How does Georgia compare?

Although it has a few components, Georgia does not have a coordinated statewide trauma system.⁴ For example, communication cannot be coordinated among counties when 20 Georgia counties do not have a 9-1-1 emergency call system. Coordination of transportation services is similarly restricted due to the insufficient number of ground and air ambulances for the size of the state.² These problems are compounded by national EMS coordination challenges, such as 6,000 different 9-1-1 call centers

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that are each run differently, some by police departments, some by fire departments, and some by county or city governments. Often these agencies cannot coordinate emergency care among themselves because their communications equipment is incompatible or they operate on different frequencies.⁵

Georgia also struggles with the regionalization of its trauma care system. The 159 counties in Georgia are grouped into 10 geographical EMS regions by the Georgia Office of Emergency Medical Services/Trauma (OEMS/T), but trauma care within those regions can vary widely depending on the population density, the resources available, and the geographic distances between those resources. Time required to reach a trauma victim and transport to a trauma care facility can be a significant challenge for many of the rural areas in the state. For example, Region 8 covers a 27-county area of 10,670 square miles in rural southwest Georgia, but has no air ambulance service, slowing access to care in this region considerably. Trauma care facilities are also limited in rural areas, with forty counties in the state lying outside a 50-mile radius of a trauma center. Not surprisingly, accident death rates in Georgia are much higher in rural areas than in urban areas.²

Georgia has made progress in creating a method of accountability for traumatic injuries and their related services. In 2002, the Georgia Trauma Registry was established as a means to collect, store, analyze and report data. Designated trauma centers send data to the OEMS/T, where it is merged and studied on a state, regional, and local level. Participating hospitals have the capability to analyze information about their trauma services on a daily basis. The data is also shared with the

National Trauma Data Bank, allowing Georgia to better understand its needs in comparison to other states. This data collection and analysis system allows Georgia to monitor its trauma services and accurately identify opportunities for improvement on a local, regional, and state level.⁶

If Georgia had a coordinated, regionalized, accountable trauma system, would it make a difference?

Yes. Trauma data reveal that Georgia's statewide mortality rate is 20% higher than the national average, yet designated trauma centers in Georgia have an 8% mortality rate, indicating that Georgia patients who are treated at optimal facilities have an excellent chance for survival. Currently, only three out of ten major traumatic injuries in Georgia are treated at designated trauma centers, revealing a significant gap in service coordination and delivery. If Georgia created a coordinated, regionalized, and accountable trauma system that gave it the capacity to reduce mortality rates to the national average, as many as 700 people per year could be saved from a trauma-related death.²

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¹ Gawande, A. (2007). *Better: A Surgeon's Notes on Performance*. New York: Metropolitan Books, Henry Holt and Company.

² State of Georgia Senate Research Office. (2007, January). Final Report of the Joint Comprehensive State Trauma Services Study Committee. Retrieved from http://www.legis.ga.gov/legis/2007_08/senate/publications/trauma-report.pdf

³ Institute of Medicine. (2006, June). Report Brief. The Future of Emergency Care in the United States Health Care System. Retrieved from <http://www.iom.edu/Object.File/Master/35/014/Emergency%20Care.pdf>

⁴ Georgia Statewide Trauma Action Team. (n.d.). Frequently Asked Questions . Retrieved May 2008, from It's About Time: <http://www.georgiatsabouttime.com/>

⁵ Institute of Medicine. (2007). *Emergency Medical Services: At the Crossroads*. Retrieved from <http://www.nap.edu/catalog/11629.html>

⁶ Department of Human Resources, Division of Public Health, Office of Emergency Medical Services/Trauma. (2004, December). *Trauma in Georgia. Analysis of Trauma System Data 2003*. Retrieved from <http://health.state.ga.us/pdfs/ems/traumaingorgia.2003.pdf>